Managing your Pasture

Conservation Solutions for your Pennsylvania Farm

NRCS Natural Resources Conservation Service

Does your pasture have:

- Bare ground
- Standing water after a rain
- Weeds
- Areas that the animals won't graze
- Slow plant growth
- Compacted areas
- Lots of livestock paths

Many pasture problems, such as slow growth, weed invasions and bare ground, are caused by the pasture management activities being used. Renovating your pasture may provide temporary improvements but you will need to change your pasture management to have long term or sustainable improvements. Grazing management is the key to healthy, productive pastures and healthy, productive pastures are the key to healthy, productive animals.

Benefits of Pasture Management:

- Improve forage quality
- Improve forage yield
- Feed less hay and silage
- Better distribution of manure (nutrients)
- Decrease weed infestations
- Decrease soil compaction
- Decrease soil washouts
- Improve the health and productivity of your animals

A well managed pasture can improve the environment and your bottom line.

Managing your Pasture

What are your goals?
When setting your goals, think of yourself as a grass farmer, not a livestock producer. Think of your livestock as a way to harvest and sell the grass. It doesn't matter whether the grass is produced on permanent pasture, cropland in a sod rotation or marginal land.

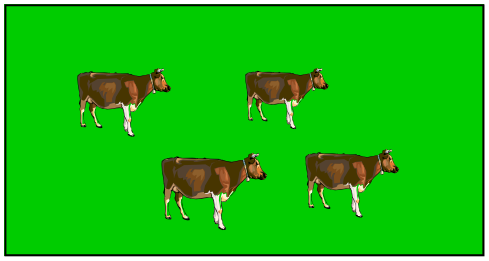
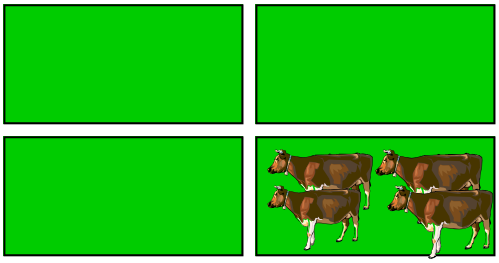
A good, overall goal is to produce enough high quality forage to feed your livestock by grazing for as much of the year as possible. Grazing is the least expensive way to harvest forage. You can lower your input costs by optimizing the use of your pasture.

Production goals should be based on the economic return per acre not the production per animal. Compare the pounds produced per acre or per dollar you invested instead of animal weight gain or milk production per animal. This type of comparison will show your actual profit more clearly.

Choosing a Grazing System
Continuous Grazing , sometimes called extensive grazing, is when livestock graze one large, undivided pasture and is probably the most commonly used system. Given the choice, the animals eat the best tasting and most nutritious plants in the pasture and often kill them by over-grazing. The coarser, less desirable plants, are under-grazed and often spread throughout the pasture. This, in turn, allows weeds to become a serious problem. The over-grazing of preferred areas and trailing caused by repetitive walking, exposes bare ground and can cause soil washouts in the pasture.

In a Rotational Grazing system, the animals rotate between small pastures or paddocks. Rotational grazing is also called controlled or management intensive grazing. Management intensive grazing typically refers to systems with numerous small paddocks where animals are moved every 2-3 days or more often. A controlled or rotational grazing system can be as simple as dividing your pasture into two paddocks. The size and shape of the paddocks is flexible.

What's the Difference?	Continuous Grazing	Rotational Grazing
pasture size and shape	• one large pasture • size and shape are rarely changed	• numerous small pastures or paddocks • flexible in size and shape
water	• water troughs or other water systems are usually not provided • livestock typically use streams or ponds for drinking water	• water troughs or other water systems are provided in each paddock • livestock typically have limited or no access to streams
fencing	• only have a stationary perimeter fence	• have a perimeter fence with portable, usually electric, interior fencing to subdivide the large pasture into paddocks

Which grazing system is best for you?	 **Continuous Grazing**	 **Rotational Grazing**
livestock distribution	• livestock graze a pasture continually • livestock have access to the entire pasture all of the time • livestock often congregate in one spot for long periods	• livestock graze for a limited time • livestock are moved to optimize forage use • livestock do not congregate in one spot for long periods
forage production	• re-growth is typically slow because the pasture is never rested • many bare areas with no forage • lower yields • height of forage used to determine when to feed hay	• re-growth is typically faster because paddocks are rested for 14-42 days • denser ground cover • higher yields • height of forage used to determine when to graze and when to move animals to a new paddock
forage use	• livestock overgraze some areas and do not utilize other areas • livestock utilize 30-50% of the pasture	• livestock graze more uniformly • livestock utilize 50-70% of the pasture
nutrients	• animal waste is usually concentrated where livestock congregate • manure must be spread	• animal waste is more evenly distributed because animals are discouraged from congregating • no need to spread manure
stocking rate	• supports less livestock per acre	• supports more livestock per acre
feed	• typically requires more feed	• feed costs decrease because livestock graze more efficiently
costs	• startup costs are lower • long-term costs are typically higher because you feed more hay, have more weeds to control and may have erosion problems	• startup costs are higher because you have additional cost of portable fencing and water troughs • long-term costs are lower because you feed less hay, have fewer weeds and erosion problems
the environment	• soil quality, water quality, plant health, animal health and productivity typically decrease over time	• soil quality, water quality, plant health, animal health and productivity increase over time
bottom line	• The net profit for dairies using rotational grazing was 72% higher than dairies using a continuous grazing system. Both had higher profits than confinement dairies. • Beef yield per acre in a rotational grazing system increased by 35% to 61% . More beef per acre, at a lower cost = greater profit. • Rotational grazing increases efficiency and productivity.	

Help is Available

NRCS Natural Resources Conservation Service

CONSERVATION SOLUTIONS FOR YOUR PENNSYLVANIA FARM

Technical Help is Available

Helping People Help the Land

Your local Natural Resources Conservation Service (NRCS) office has experienced conservationists that can help you develop a pasture management system. They can also help you develop a Conservation Plan to solve other problems you have identified on your farm.

There is no charge for our assistance. Simply call your local office at the number listed below to set up an appointment and we will come to your farm.

You may also be eligible to receive financial assistance, through a state or federal program. Your NRCS office will explain any programs that are available so you can make the best decision for your operation. All NRCS programs and services are voluntary.

NRCS FIELD OFFICES:

Adams: 717-334-2317 ext 3
Allegheny: 717-482-4800 ext 3
Armstrong: 724-545-1022 ext 3
Beaver: 724-482-4800 ext 3
Bedford: 814-623-7900 ext 3
Berks: 610-372-4655 ext 3
Blair: 814-695-6291 ext 3
Bradford: 570-265-6969 ext 3
Bucks: 215-453-9527 ext 3
Butler: 724-482-4800 ext 3
Cambria: 814-472-5502 ext 3
Cameron: 814-375-2125 ext 3
Carbon: 610-625-8392 ext 3
Centre: 570-726-3196 ext 3
Chester: 610-696-0398 ext 3
Clarion: 814-226-8160 ext 3
Clearfield: 814-375-2125 ext 3
Clinton: 570-726-3196 ext 3
Columbia: 570-784-1062 ext 3
Crawford: 814-724-1852 ext 3
Cumberland: 717-249-1037 ext 3
Dauphin: 717-921-2380 ext 3
Delaware: 610-696-0398 ext 3
Elk: 814-375-2125 ext 3
Erie: 814-796-6760 ext 3
Fayette: 724-437-7971 ext 3
Forest: 814-226-8160 ext 3
Franklin: 717-264-8074 ext 3
Fulton: 717-485-3812 ext 3
Greene: 724-627-5821
Huntingdon: 814-627-1626 ext 3
Indiana: 727-463-8547 ext 3
Jefferson: 814-375-2125 ext 3
Juniata: 717-436-8953 ext 3
Lackawanna: 570-282-8732 ext 3
Lancaster: 717-299-5361 ext 3
Lawrence: 724-652-5811
Lebanon: 717-272-3908 ext 3
Lehigh: 610-625-8392 ext 3
Luzerne: 570-799-0645 ext 3
Lycoming: 570-433-3902 ext 3
McKean: 814-274-8166 ext 3
Mercer: 724-662-3740 ext 3
Mifflin: 717-248-9541 ext 3
Monroe: 610-625-8392 ext 3
Montgomery: 610-372-4655 ext 3
Northhampton: 610-625-8392 ext 3
Northumberland: 570-286-7114 ext 3
Perry: 717-582-4144 ext 3
Pike: 570-282-8732 ext 3
Potter: 814-274-8166 ext 3
Schuykill: 570-622-1312 ext 3
Snyder: 570-837-0007 ext 3
Somerset: 814-445-6876 ext 3
Sullivan: 570-836-2490 ext 3
Susquehanna: 570-278-1011 ext 3
Tioga: 570-724-1726 ext 3
Union: 570-523-3280
Warren: 814-563-3125
Washington: 724-222-3060 ext 3
Wayne: 570-282-8732 ext 3
Westmoreland: 724-834-3970 ext 3
Wyoming: 570-836-2490 ext 3
Venago: 814-437-2473 ext 3
York: 717-755-2966 ext 3